

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY OPERATING PERMIT

Permit No.098TVP01
Application No.A00098

Issue Date: January 28, 2003
Expiration Date: February 29, 2008

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the permittee, Alyeska Pipeline Service Company, for the operation of the Trans Alaska Pipeline System - Pump Station 5 (PS-5).

This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b).

As set out in AS 46.14.120(c), the permittee shall comply with the terms and conditions of this operating permit.

This Operating Permit becomes effective March 1, 2003.

John F. Kuterbach, Manager

Air Permits Program

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List of Abbreviations Used in this Permit

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AS	Alaska Statutes
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
dscf	Dry standard cubic foot
EEMSP	Excess Emissions and Monitoring Systems Performance
EPA	US Environmental Protection Agency
gr./dscf	grain per dry standard cubic foot (1 pound = 7000 grains)
GPH	gallons per hour
HAPs or HACs	Hazardous Air Pollutants or Hazardous Air Contaminants [<i>HAPs</i> or <i>HACs</i> as defined in AS 46.14.990(14)]
ID	Source Identification Number
kPa	kiloPascals
MACT	Maximum Achievable Control Technology
MR&R	Monitoring, Recordkeeping, and Reporting
NESHAPs	Federal National Emission Standards for Hazardous Air Pollutants [<i>NESHAPS</i> as defined in 40 C.F.R. 61]
NO _x	Nitrogen Oxides
NSPS	Federal New Source Performance Standards [<i>NSPS</i> as defined in 40 C.F.R. 60]
ppm	Parts per million
PS	Performance specification
PS-5	Pump Station 5
PSD	Prevention of Significant Deterioration
RM	Reference Method
SIC	Standard Industrial Classification
SO ₂	Sulfur dioxide
TAPS	Trans Alaska Pipeline System
TPH	Tons per hour
tpy	Tons per year
VOC	volatile organic compound [<i>VOC</i> as defined in 18 AAC 50.990(103)]
wt%	weight percent

Section 1. Identification

Names and Addresses

Permittee: Alyeska Pipeline Service Company
1835 South Bragaw St.
Anchorage, AK 99512

Facility Name: Trans Alaska Pipeline System - Pump Station 5 (PS-5)

Physical Address: Sections 18 and 19, T23N, R14W
Fairbanks Meridian, Alaska

Owners as of permit issue date: Amerada Hess Pipeline Corp.
BP Pipelines (Alaska) Inc.
ExxonMobil Pipeline Company
Phillips Alaska Transportation, Inc.
Unocal Pipeline Company
Williams Alaska Pipeline Company, LLC

Operator: Alyeska Pipeline Service Company

Permittee's Responsible Official
Pipeline Manager Jim F. Johnson. Or, successor

Designated Agent: CT Corporation System
Supervisor of Process/SP
801 West Tenth Street, Suite 300
Juneau, AK 99801
(907) 586-3340

Facility Contact: PS5 Operations and Maintenance Supervisor
(907) 450-4505

Billing Contact: Tammy Martin, or successor,
Environment Billing Administrator
P. O. Box 60469, MS 814
Fairbanks, AK 99706

Facility Process Description
SIC Code of the Facility: 4612 – Crude Oil Pipelines

[18 AAC 50.350(b)(1), 1/18/97]

Section 2. General Emission Information

[18 AAC 50.350(b)(1), 1/18/97]

Emissions of Regulated Air Contaminants, as provided in the permittee's application:

Nitrogen Oxides (NO_x), Carbon Monoxide (CO), Sulfur Dioxide (SO₂), Inhalable Particulates (PM₁₀), Volatile Organic Compounds (VOC), p-Xylenes, 1,3-Butadiene, Acrolein, m-Xylenes, Toluene, Phenol, Xylenes (isomers and mixture), Formaldehyde, 2,2,4-Trimethylpentane, Benzene (including benzene from gasoline), Acetaldehyde, Naphthalene, o-Xylenes, Ethylene glycol, Hexane (as n-Hexane), Polycyclic organic matter, Carbonyl disulfide, Arsenic, Beryllium, Chromium Compounds, Cobalt Compounds. Lead, Mercury, Halon 1301, Reduced sulfur compounds, Hydrogen sulfide, Methanol, Ethylbenzene, Dichlorodifluoromethane (R-21), Chlorodifluoromethane (R-22), Chlorotrifluoromethane and Trifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane (R-503), (Chlorotrifluoromethane) and (Trifluoromethane).

Operating Permit Classifications:

- (1) 18 AAC 50.325(b)(1)
- (2) 18 AAC 50.325(b)(3)

Section 3. Source Listing and Description

Sources listed in Table 1 have source specific monitoring, recordkeeping, or reporting conditions stated elsewhere in this permit. Source descriptions and ratings in Table 1 are for identification purposes only.

Table 1 - Source Inventory

ID	Source Description ³	Fuel/Exhaust Description	Rating/size (not enforceable)	Commence construction ²
1	Solar Turbine Electric Generator 35-G-4AT	Distillate Oil 1 & 2 blend / Turbine Stack	12.6 MMBtu/hr	Pre-1977
2	Solar Turbine Injection Pump 35-P-3AT	Distillate Oil 1 & 2 blend / Turbine Stack	1,100 hp	Pre-1977/1983 ¹
3	Solar Turbine Injection Pump 35-P-3BT	Distillate Oil 1 & 2 blend / Turbine Stack	1,100 hp	Pre-1977/1983 ¹
4	Garnett Turbine Electric Generator 35-G-1AT	Distillate Oil 1 & 2 blend / Turbine Stack	510 kW	Pre-1977
5	Garnett Turbine Electric Generator 35-G-1BT	Distillate Oil 1 & 2 blend / Turbine Stack	510 kW	Pre-1977
6	Garnett Turbine Electric Generator 35-G-2AT	Distillate Oil 1 & 2 blend / Turbine Stack	510 kW	Pre-1977
7	Eclipse Therminol Heater 35-H-1A	Distillate Oil 1 & 2 blend / Heater Stack	20.6 MMBtu/hr	Pre-1977
8	Eclipse Therminol Heater 35-H-1B	Distillate Oil 1 & 2 blend / Heater Stack	20.6 MMBtu/hr	Pre-1977
9	Burnham PF-512 Boiler	Distillate Oil 1 & 2 blend / Boiler Stack	2.373 MMBtu/hr	Pre-1977
10	Burnham PF 512 Boiler	Distillate Oil 1 & 2 blend / Boiler Stack	2.373 MMBtu/hr	Pre-1977
11	Therm-Tec Solid Waste Incinerator 35-IN-1	Incinerator Stack	300 lb/hr	Pre-1977

Table Notes

- 1 Source ID(s) 2 or 3 were constructed prior to October 3, 1997. Two NSPS subject Solar turbine engine(s), s/n 0753S21 or 0756S21, may be rotated in or out of Source ID(s) 2 or 3 during routine swapping of turbine engines between facilities. These engines, manufactured in 1983, are subject to the applicable NSPS 40 CFR 60 Subpart A and GG requirements when located at the facility.
- 2 Commence construction per 40 C.F.R. 52.21(b) & (i) and 40 C. F. R. 60.2
- 3 These numbers are Alyeska Equipment Tag Numbers. They are not manufacturer's serial numbers.

Section 4. Fee Requirements

- 1. Assessable Emissions.** The permittee shall pay to the department an annual emission fee based on the facility's assessable emissions as assessed by the department. The department will assess fees based on the assessable emission fee rate listed in 18 AAC 50.410(b), for each ton of air contaminants that the facility emits or has the potential to emit in quantities greater than 10 tons per year. The quantity of emissions for which fees will be assessed is the lesser of

[18 AAC 50.400 – 50.420, 1/18/97]

- 1.1 the facility's annual rate of emissions projected to occur from July 1 to the following June 30, based upon the actual annual emissions for the most recent calendar year or another 12-month period approved by the department, as demonstrated by
- a. an enforceable test method described in 18 AAC 50.220;
 - b. material balance calculations;
 - c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or
 - d. other methods and calculations approved by the department; **or**

- 1.2 the facility's assessable potential to emit (PTE) of 469 tons per year¹ (TPY).

[18 AAC 50.350(c) & 50.410, 1/18/97]

- 2. Assessable Emission Estimates.** The permittee shall submit assessable emissions estimates as follows:

- 2.1 No later than March 31 of each year, submit an estimate of the facility's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emission Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795, including all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the department can verify the estimates, or
- 2.2 If no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit listed in condition 1.2.
- 2.3 The estimate of assessable emissions provided under paragraph 2.1 above may include a gross estimate of emissions for any insignificant sources defined under 18 AAC 50.335(q) through (v) located at the facility. Documentation is not required for subsequent submittals unless requested by the department.

[18 AAC 50.350(c) & (g) – (i), 18 AAC 50.410, 1/18/97, & 18 AAC 50.346(a)(1), 5/3/02]

¹ The PS 5 facility's SO_x potential to emit has been calculated using AP-42 factors and has assumed a liquid fuel sulfur content of 0.24%. There are no permit requirements that limit the fuel sulfur content to 0.24%.

Section 5. Source-Specific Requirements

Fuel-Burning Equipment

3. Visible Emissions.

3.1 In accordance with 18 AAC 50.055(a)(1), the permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Source ID(s) 1 – 10, listed in Table 1 to reduce visibility through the exhaust effluent by any of the following:

- a. greater than 20 percent for a total of more than three minutes in any one hour²;
[18 AAC 50.055(a)(1), 1/18/97 & 40 CFR 52.70, 11/18/98]
- b. more than 20 percent averaged over any six consecutive minutes
[18 AAC 50.055(a)(1), 5/3/02]

3.2 For each of Source ID(s) 1 – 10 that operate more than 400 hours per calendar year on liquid fuel, the permittee shall monitor, record, and report visible emissions in accordance with Section 12.

3.3 Report under Condition 40 if the visible-emission standard in Condition 3.1 is exceeded.

[18 AAC 50.350(g)-(i), 1/18/97 & 18 AAC 50.346(c), 5/3/03]

4. **Particulate Matter.** The permittee shall not cause or allow particulate matter emitted from Source IDs 1 - 10 listed in Table 1 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours. The permittee shall monitor, record and report particulate matter for Source IDs 1 - 10 in accordance with Section 12 if operated over 400 hours per calendar year on liquid fuel.

[18 AAC 50.055(b)(1) & 50.350(g) – (i), 1/18/97]
[18 AAC 50.350(d)(1)(C), 6/21/98]

5. **Sulfur Compound Emissions.** In accordance with 18 AAC 50.055(c), the permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from Source IDs 1 – 10 to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c), 1/18/97; 18 AAC 50.346(c), 5/3/02; 18 AAC 50.350(d)(1)(D); 1/18/97]

5.1 Sulfur Compound Emissions – Monitoring and Record Keeping.

- a. The permittee shall:
 - (i) Obtain a statement or receipt from the fuel supplier verifying the sulfur content of the fuel for each shipment of fuel delivered to the facility, or

² For purposes of this permit, this condition will no longer be effective when the Air Quality Control (18 AAC 50) regulation package effective 5/3/02 is adopted by the U.S. EPA. The six-minute average standard (Condition 3.1b) is in effect as a SIP requirement when EPA approves the SIP.

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- (ii) Analyze a representative sample of the fuel from the facility fuel storage tank once per calendar month to determine the sulfur content. Acceptable ASTM test methods include D2880-87, D4294-98, or later versions, other listings under 18 AAC 50.035, or an alternative method approved by the department.
 - b. If a load of fuel contains greater than 0.75% sulfur by weight, the permittee shall calculate SO₂ emissions in PPM using the Standard Operating Permit Condition XII – SO₂ Material Balance Calculation, adopted by reference in 18 AAC 50.346(c), or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

[18 AAC 50.350(g) - (h), 1/18/97 & 18 AAC 346(c), 5/3/02]

5.2 Sulfur Compound Emissions – Reporting. The permittee shall report in accordance with this condition.

- a. If SO₂ emissions are calculated under Condition 5.1b to exceed 500 ppm, the permittee shall report under Condition 40. When reporting under this condition, include the calculation under the Standard Operating Permit Condition XII – SO₂ Material Balance Calculation, adopted by reference in 18 AAC 50.346(c).
- b. The permittee shall include in the report required by Condition 42.
 - (i) a list of the fuel grades or sulfur content of fuels received at the facility during the reporting period;
 - (ii) for any grade with a maximum fuel sulfur greater than 0.5% sulfur, the fuel sulfur of each shipment; and
 - (iii) for fuel with a sulfur content greater than 0.75%, the calculated SO₂ emissions in PPM.

[18 AAC 50.350(i), 1/18/97 & 18 AAC 346(c), 5/3/02]

Incinerators subject to State Emission Standards

6. Incinerator Visible Emissions. The permittee shall not cause or allow visibility through the exhaust effluent of Source ID 11 to be reduced by visible emissions, excluding condensed water vapor, by more than either 20 percent averaged over any six consecutive minutes or by greater than 20 percent for a total of more than three minutes² in any one hour, as follows:

- 6.1 For source ID 11 the permittee shall observe emissions for 18 consecutive minutes to obtain a minimum of 72 observations in accordance with Method 9 of 40 C.F.R. 60, Appendix A, at least once within six months after the effective date of this permit and every 24 calendar months thereafter.

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- 6.2 Report as excess emissions, in accordance with condition 40, whenever the visible emission standard in this condition is exceeded.

[18 AAC 50.050(a)(2), 1/18/97]
[18 AAC 50.050(a), 5/3/02]
[18 AAC 50.350(g)-(i), 1/18/97]

7. **Hospital/Medical/Infectious Waste Incineration.** The permittee shall not allow the total quantity (pounds) of medical/infectious wastes to exceed 10 percent of the total waste (pounds) incinerated on a calendar quarter basis:

- 7.1 Keep records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted in Source ID 11, to demonstrate compliance with Condition 7.
- 7.2 Keep copies of the exemption claim notification provided to the Federal Administrator pursuant to 40 C.F.R. 60.32e (c)(1) and 40 C.F.R. 62.14400(c).
- 7.3 Report, under condition 40, if the amount of medical/infectious waste incinerated exceeds the 10 percent exemption threshold of Condition 7.

[40 CFR 60.32e(c)(2)&(3), 9/15/97]
[18 AAC 50.350(g) - (i), 6/21/98]

Federal New Source Performance Standards, Subpart GG

Turbine Engine Replacement. The permittee has a family of turbine engines that are rotated in and out of operation for Source IDs 1 through 6 as dictated by maintenance. Two replacement Solar turbines, S/N 0753s21 and 0756s21 were manufactured after the 1977/1982 applicability dates for 40 CFR 60 Subpart GG (NSPS). This permit has permit terms that address the replacement of the existing turbines with the Solar turbines that have been identified as being subject to 40 CFR 60 Subpart GG. Source IDs 2 and 3 are the only positions where Alyeska requests the flexibility of operating these Solar Turbine engines, S/N 0753s21 and 0756s21.

[18 AAC 50.365(a), 1/18/97]

8. **Turbines Subject to NSPS, 40 CFR Part 60 Subparts GG and A.** Solar Turbine Engine Serial Number 0753s21 and 0756s21 may be used to replace the existing turbine engines located in position Source IDs 2 and 3. The Solar Turbine engines, s/n 0753s21 and 0756s21, are subject to Subpart GG requirements because the engines were manufactured after October 3, 1982 and have a heat input rating over 10.7 gigajoules per hour. If the turbine engines are located at the facility, Solar turbine engines, 0753s21 and 0756s21, shall:

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 C.F.R. 60.332(a), 7/1/99]

- 8.1 Not emit NO_x in excess of 150 PPM at 15 percent O₂, ISO conditions.

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 C.F.R. 60.332 (a) & (d), 7/1/99]

- 8.2 Not burn fuel with a sulfur content in excess of 0.8 percent by weight.

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 C.F.R. 60.333(a) & (b), 7/1/99]

- 8.3 Monitor the sulfur content of the fuel being burned in accordance with the custom fuel monitoring approved by EPA (EPA letter dated 10/16/97) to fulfill 40 CFR 60.334(b). Monitoring for fuel nitrogen is not required consistent with the custom fuel monitoring exemption approved by EPA.

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 C.F.R. 60.334(b), 7/1/99]

- 8.4 Submit the fuel monitoring reports semiannually as approved by EPA (EPA letter(s) dated 10/16/97 and 10/30/97) to fulfill 40 CFR 60.7(c), (d), and 60.334(c).

[18 AAC 50.040(a)(1) & (a)(2)(V), 7/2/00]
[40 C.F.R. 60.7(c) and (d), 60.334 (c), 7/1/99]

- 8.5 Maintain records of startup, shutdown, and malfunction as required by 40 CFR 60.7(b).

[18 AAC 50.040(a)(1), 7/2/00]
[40 C.F.R. 60.7(b), 7/1/99]

- 8.6 Maintain a record of all measurements, including performance tests, and all other information under 40 CFR Part 60 as required by 40 CFR 60.7(f).

[18 AAC 50.040(a)(1) & (a)(2)(V), 7/2/00]
[40 C.F.R. 60.7(f), 60.334 and 60.335, 7/1/99]

- 8.7 Maintain and operate in a manner consistent with good air pollution control practices for minimizing emissions as required by 40 CFR 60.11(d).

[18 AAC 50.040(a)(1), 7/2/00]
[40 C.F.R. 60.11(d), 7/1/99]

- 8.8 Not build, erect, install, or use any article, machine, equipment or process which conceals an emission which would otherwise constitute a violation of an applicable standard as required by 40 CFR 60.12.

[18 AAC 50.040(a)(1), 7/2/00]
[40 C.F.R. 60.12, 7/1/99]

Turbines Subject to NSPS Subpart GG

9. NO_x Monitoring, Recordkeeping, and Reporting for turbines subject to Condition 8

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 C.F.R. 60.332(a)(1), Subpart GG, 7/1/99]

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- 9.1 **Waivers.** The permittee shall provide to the department a written copy of any U.S. EPA granted waiver of the federal emission standards, recordkeeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules upon request by the department. The permittee shall keep a copy of each U.S. EPA issued monitoring waiver or custom monitoring schedule with the permit.

9.2 **Periodic Testing.**

- a. **Initial Periodic Testing.** For each turbine subject to condition 8.1 that operates for 400 hours or more in any 12-month period during the life of this permit, the permittee shall satisfy either condition 9.2a(i) or 9.2a(ii).
- (i) For existing turbines not represented by emission data described in condition 9.2a(ii), the permittee shall conduct a NO_x and O₂ source test under 40 C.F.R. 60, Appendix A-7, Method 20 within three years after issuance of this permit, or within one year of exceeding 400 hours in a 12 consecutive month period, whichever time period is greater. If a turbine exceeds the operating threshold such that the time remaining before permit expiration is less than 12 months then the permittee shall conduct such testing as authorized by a renewal of the permit.
- (a) for each turbine, or
- (b) on one turbine to represent a group of turbines, if allowed to do so under condition 9.3.
- (ii) If a test following 40 C.F.R. 60, Appendix A-7, Method 20 or following another protocol approved by the department has been conducted on a turbine within two years before the issuance date of this permit, and the test shows that emissions at maximum load are less than 90 percent of the emission limit in condition 8.1, then
- (a) the permittee may use those test results to represent emissions from that turbine or for a group of turbines if allowed under condition 9.3 until the testing of condition 9.2a(ii)(b) is performed; and
- (b) the permittee shall conduct a Method 20 test on each turbine, or on one of a group of turbines as allowed under condition 9.3, within the 5 years of the permit term.

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- b. **Higher Tier Testing.** For each turbine with test results under condition 9.2a that are 90 percent or more of the emission limit of condition 8.1, or for which emissions will equal or exceed 90% of the emission limit at maximum load, as shown through condition 9.4, the permittee shall conduct an additional Method 20 test for the turbine within one year of the test under condition 9.2a. The permittee shall conduct at least one additional test per year until at least two consecutive tests show that emissions for the turbine are less than 90 percent of the limit at loads up to maximum load.

9.3 **Substituting Test Data.** The permittee may use a Method 20 test under conditions 9.2a or 9.2b performed on only one of a group of turbines to satisfy the requirements of those conditions for the other turbines in the group if

- a. the permittee demonstrates that test results are less than 90% of the emission limit of condition 8.1, and are projected under condition 9.4 to be less than 90% of the limit at maximum load;
- b. for any source test done after the issuance date of this permit, the permittee identifies in a source test plan under condition 31.
 - (i) the turbine to be tested;
 - (ii) the other turbines in the group that are to be represented by the test; and
 - (iii) why the turbine to be tested is representative, including that each turbine in the group
 - (a) is located at a facility operated and maintained by the permittee;
 - (b) is the same make and model and has identical injectors and combustor; and
 - (c) uses the same fuel type.
- c. for any source test done before the issuance date of this permit and used under condition 9.2a(ii), the permittee
 - (i) demonstrates why the test results are representative of emissions from the entire group of turbines, including that each turbine in the group
 - (a) is located at a facility operated and maintained by the permittee;
 - (b) is the same make and model and has identical injectors and combustor;
 - (c) uses the same fuel type;

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- (ii) submits all results of source testing that has been performed on each turbine in the group, regardless of the date of the test, and certifies that the submittal is complete, consistent with 18 AAC 50.205.

9.4 Load.

- a. The permittee shall conduct all tests under condition 9.2 in accordance with 40 C.F.R. 60.335(c)(3), except as otherwise approved in writing by the department, or by EPA if the circumstances at the time of the EPA approval are still valid. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and facility operating conditions in effect at the time of the test.
- b. The permittee shall demonstrate in the source test plan for any test performed after the issue date of this permit whether the test is scheduled when maximum NO_x emissions are expected.
- c. If the highest operating rate tested is less than the maximum load of the tested turbine or another turbine represented by the test data,
 - (i) for each such turbine the permittee shall provide to the department as an attachment to the source test report
 - (a) additional test information from the manufacturer or from previous testing of units in the group of turbines; if using previous testing of the group of turbines, the information must include all available test data for the turbines in the group, and
 - (b) a demonstration based on the additional test information that projects the test results from condition 9.2 to predict the highest load at which emissions will comply with the limit in condition 8.1;
 - (ii) the permittee shall not operate any turbine represented by the test data at loads for which the permittee's demonstration predicts that emissions will exceed the limit of condition 8.1;
 - (iii) the permittee shall comply with a written finding prepared by the department that
 - (a) the information is inadequate for the department to reasonably conclude that compliance is assured at any load greater than the test load, and that the permittee must not exceed the test load;

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- (b) the highest load at which the information is adequate for the department to reasonably conclude that compliance assured is less than maximum load, and the permittee must not exceed the highest load at which compliance is predicted, or
 - (c) the permittee must retest during a period of greater expected demand on the turbine; and
 - (iv) the permittee may revise a load limit by submitting results of a more recent Method 20 test done at a higher load, and, if necessary, the accompanying information and demonstration described in condition 9.4c(i); the new limit is subject to any new department finding under condition 9.4c(iii).
- d. In order to perform a Method 20 emission test, the permittee may operate a turbine at a higher load than that prescribed by condition 9.4c.
 - e. For the purposes of conditions 9.1 through 9.6, maximum load means the hourly average load that is the smallest of
 - (i) 100 percent of manufacturer's design capacity of the gas turbine at ISO standard day conditions;
 - (ii) the highest load allowed by an enforceable condition that applies to the turbine; or
 - (iii) the highest load possible considering permanent physical restraints on the turbine or the equipment which it powers.

9.5 **Recordkeeping.**

- a. The permittee shall comply with the following for each turbine for which a demonstration under condition 9.4c does not show compliance with the limit of condition 8.1 at maximum load.
 - (i) The permittee shall keep records of
 - (a) load; or
 - (b) as approved by the department, surrogate measurements for load and the method for calculating load from those measurements.
 - (ii) Records in condition 9.5a shall be hourly or otherwise as approved by the department.

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- (iii) Within one month after submitting a demonstration under condition 9.4c(i)(b) that predicts that the highest load at which emissions will comply is less than maximum load, or within one month of a department finding under condition 9.4c(iii), whichever is earlier, the permittee shall propose to the department how they will measure load or load surrogates, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The permittee shall comply with the approved load monitoring methods, equipment, or schedule.
 - b. For any turbine subject to condition 8.1, that will operate less than 400 hours in any 12 consecutive months, keep monthly records of the hours of operation. If a turbine that normally operates less than 400 hours exceeds that total during any 12-month period during the permit term, test according to condition 9.2.

9.6 Reporting.

- a. In each facility operating report under Condition 42 the permittee shall list for each turbine tested or represented by testing at less than maximum load and for which the permittee must limit load under condition 9.4c
 - (i) the load limit;
 - (ii) the turbine identification; and
 - (iii) the highest load recorded under condition 9.5a during the period covered by the operating report.
- b. In each facility operating report under Condition 42 for each turbine for which condition 9.2 has not been triggered because the turbine normally operates less than 400 hours in any 12 months, the permittee shall identify
 - (i) the turbine;
 - (ii) the highest number of operating hours for any 12 months ending during the period covered by the report; and
 - (iii) any turbine subject to 40 CFR 60.332(a) that operated for 400 or more hours.
- c. The permittee shall report under condition 40 if
 - (i) a test result exceeds the emission standard;
 - (ii) Method 20 testing is required under condition 9.2 or 9.5b but not performed, or

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- (iii) the turbine was operated at a load exceeding that allowed by conditions 9.4c(ii) and 9.4c(iii); exceeding a load limit is deemed a single violation rather than a multiple violation of both monitoring and the underlying emission limit.

[18 AAC 50.350(g) - (i), 5/3/02, 50.220(a) - (c), 1/18/97, & 50.040(a)(1), 7/2/00]
[40 CFR 60.8(b), 7/1/99]

10. Report per condition 40 when the emission limits in conditions 8.1 or 8.2 are exceeded.

[18 AAC 50.350(i), 7/2/00]
[18 AAC 50.040(a)(2)(V), 7/2/00]

11. **Turbine Relocations.** The permittee may move turbine engines, from a pool of turbine engines, from location to location between TAPS pump stations to allow for maintenance of turbine engines. Conditions 11.1 through 11.5 apply only to gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour.

11.1 The permittee shall maintain, for each turbine engine, records of the maintenance, repairs, parts replacement, including the date of each servicing, the service performed, and the costs of the service.

11.2 The permittee shall record in a log the following information each time a turbine engine from the pool is switched into service:

- a. The date the switched occurred;
- b. Identification of the removed turbine and the substitute turbine engine by make, model, date of manufacture, serial number, maximum heat input, and location.

11.3 The permittee shall submit with the first facility operating report required by Condition 42 a complete list of all turbine engines maintained as part of a pool which contains an NSPS Subpart GG turbine, with information on the make, model, date of manufacture, serial number, maximum heat input, and location for each turbine engine.

11.4 The permittee shall notify the department in writing no later than 14 days after any rotation of an NSPS Subpart GG turbine into an operating turbine position.

11.5 The permittee shall submit a copy of the records required by Condition 11.2 with the facility operating report required by Condition 42 for all turbine engines switched during the reporting period.

[40 CFR 70.6(a)(9), 11/18/98]
[EPA Letter, 40 CFR 60 Subpart GG Applicability Determination, 8/1/02]
[18 AAC 50.350(g) - (i) & 50.346(c), 5/3/02]

Section 6. Insignificant Sources

This section contains the requirements that the permittee identified under 18 AAC 50.335(q)(2) as applicable to insignificant sources at the facility. This section also specifies the testing, monitoring, recordkeeping, and reporting for insignificant sources that the department finds necessary to ensure compliance with the applicable requirements. Insignificant sources are not exempted from any air quality control requirement or federally enforceable requirement.

As set out in 18 AAC 50.350(m), the shield of AS 46.14.290 does not apply to insignificant sources.

- 12.** For sources at the facility that are insignificant as defined in 18 AAC 50.335(q)-(v) that are not listed in this permit, the following apply:

12.1 the permittee shall submit the compliance certifications of Condition 36 based on reasonable inquiry;

12.2 the permittee shall comply with the requirements of Condition 23;

12.3 the permittee shall report in the operating report required by Condition 42 if a source is insignificant because of actual emissions less than the thresholds of 18 AAC 50.335(r) and actual emissions become greater than any of those thresholds;

12.4 no other monitoring, record keeping, or reporting is required.

[18 AAC 50.346(b)(1), 5/3/02]

- 13.** The permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process, fuel-burning equipment, or an incinerator to reduce visibility through the exhaust effluent by any of the following

13.1 more than 20% for more than three minutes in any one hour³,

[18 AAC 50.055(a)(1), 1/18/97, 40 CFR 52.70, 11/18/98]

13.2 more than 20% averaged over any six consecutive minutes.

[18 AAC 50.055(a)(1), 5/3/02]

- 14.** The permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b)(1), 1/18/97]

- 15.** The permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c), 1/18/97]

³ See Footnote 2

Section 7. Generally Applicable Requirements

- 16. Asbestos NESHAP.** The permittee shall comply with the requirements set forth in 40 C.F.R. 61.145, 61.150, and 61.152, and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A to 40 CFR 61 Subpart M.
[18 AAC 50.040(b)(3) & 50.350(d)(1), 1/18/97]
[40 C.F.R. 61, Subparts A & M, 12/19/96]
- 17. Refrigerant and Halocarbon Recycling and Disposal.** The permittee shall comply with the standards for recycling and emission reduction of Halon and refrigerants as set forth in 40 C.F.R. 82, Subparts F through H.
[18 AAC 50.040(d) & 50.350(d)(1), 1/18/97]
[40 C.F.R. 82, Subpart F, 7/1/97]
[Federal Citation: 40 C.F.R. 82.270(b) – (f)]
[Federal Citation: 40 C.F.R. 82.174(b) – (d)]
- 18. Good Air Pollution Control Practice.⁴** The permittee shall do the following for sources 1 to 11:
- a. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
 - b. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format;
 - c. keep a copy of either the manufacturer's or the operator's maintenance procedures.
- [18 AAC 50.030 & 50.346(b)(2), 5/3/02 & 18 AAC 50.350(f)(2) & (3), 1/18/97]
- 19. Dilution.** The permittee shall not dilute emissions with air to comply with this permit.
[18 AAC 50.045(a), 1/18/97]
- 20. Reasonable Precautions to Prevent Fugitive Dust.** A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.
[18 AAC 50.045(d), 5/3/02]
- 21. Stack Injection.** The permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, unless approved in writing by the department.
[18 AAC 50.055(g), 1/18/97]
- 22. Open Burning and Firefighter Training.** The permittee shall comply with the applicable requirements of 18 AAC 50.065(a – k) when conducting open burning at the facility.

⁴ This condition does not apply to NSPS, NESHAPs and Part 82 sources.

[18 AAC 50.065, 1/18/97]

22.1 Firefighter Training: Structures. A fire service may open burn structures for firefighter training without ensuring maximum combustion efficiency under the following circumstances:

- a. before igniting the structure, the fire service shall
 - (i) obtain department approval for the location of the proposed firefighter training; approval will be based on whether the proposed open burning is likely to adversely affect public health in the neighborhood of the structure;
 - (ii) visually identify materials in the structure that might contain asbestos, test those materials for asbestos, and remove all materials that contain asbestos;
 - (iii) ensure that the structure does not contain
 - (a) putrescible garbage;
 - (b) electrical batteries;
 - (c) stored chemicals such as fertilizers, pesticides, paints, glues, sealers, tars, solvents, household cleaners, or photographic reagents;
 - (d) stored linoleum, plastics, rubber, tires, or insulated wire;
 - (e) hazardous waste;
 - (f) lead piping;
 - (g) plastic piping with an outside diameter of four inches or more; or
 - (h) urethane or another plastic foam insulation;
 - (iv) provide public notice consistent with 18 AAC 50.065(j); and
 - (v) ensure that a fire-service representative is on-site before igniting the structure;
- b. the fire service shall ignite and conduct training on only one main structure and any number of associated smaller structures at a time; examples of associated smaller structures are garages, sheds, and other outbuildings; and
- c. the fire service shall respond to complaints in accordance with 18 AAC 50.065(k).

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- 22.2 **Firefighter Training: Fuel Burning.** Unless a greater quantity is approved by the department, a fire service may open burn up to 250 gallons of uncontaminated fuel daily and up to 600 gallons yearly for firefighter training without ensuring maximum combustion efficiency. To conduct this training without prior written department approval, the fire service shall
- a. provide public notice consistent with 18 AAC 50.065(j) before burning more than 20 gallons of uncontaminated fuel, unless waived in writing by the department; and
 - b. respond to complaints in accordance with 18 AAC 50.065(k).
23. **Air Pollution Prohibited.** No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.
- [18 AAC 50.346(a)(2), 5/3/02; 18 AAC 50.110, 5/26/72; 18 AAC 50.040(e), 7/2/00]
- 23.1 If emissions present a potential threat to human health or safety, the permittee shall report any such emissions according to condition 40.
- 23.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the facility, the permittee shall investigate the complaint to identify emissions that the permittee believes have caused or are causing a violation of condition 23.
- 23.3 The permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if
- a. after an investigation because of a complaint or other reason, the permittee believes that emissions from the facility have caused or are causing a violation of condition 23; or
 - b. the department notifies the permittee that it has found a violation of condition 23
- 23.4 The permittee shall keep records of
- a. the date, time, and nature of all emissions complaints received;
 - b. the name of the person or persons that complained, if known;
 - c. a summary of any investigation, including reasons the permittee does or does not believe the emissions have caused a violation of condition 23; and
 - d. any corrective actions taken or planned for complaints attributable to emissions from the facility.
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- 23.5 With each facility operating report under Condition 42, the permittee shall include a brief summary report which must include
- a. the number of complaints received;
 - b. the number of times the permittee or the department found corrective action necessary;
 - c. the number of times action was taken on a complaint within 24 hours; and
 - d. the status of corrective actions the permittee or department found necessary that were not taken within 24 hours.
- 23.6 The permittee shall notify the department of a complaint that is attributable to emissions from the facility within 24 hours after receiving the complaint, unless the permittee has initiated corrective action within 24 hours of receiving the complaint.
[18 AAC 50.350(h) – (i), 1/18/97]
- 24. Technology-Based Emission Standard.** If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235, causes emissions in excess of a technology-based emission standard⁵, the permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard.
[18 AAC 50.235(a) & 50.350(f)(3), 1/18/97]
- 25. Permit Renewal.** To renew this permit, the permittee shall submit an application under 18 AAC 50.335 no sooner than **August 28, 2006** and no later than **August 29, 2007** to renew this permit.
[18 AAC 50.335(a), 1/18/97]

⁵ *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology standard established 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Section 8. General Source Testing and Monitoring Requirements

- 26. Requested Source Tests.** In addition to any source testing explicitly required by this permit, the permittee shall conduct source testing as requested by the department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a), 1/18/97; 18 AAC 50.345(k), 5/3/02]

- 27. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the permittee shall conduct source testing

[18 AAC 50.220(b) & 50.350(g), 1/18/97]

27.1 at a point or points that characterize the actual discharge into the ambient air; and

27.2 at the maximum rated burning or operating capacity of the source or another rate determined by the department to characterize the actual discharge into the ambient air.

- 28. Reference Test Methods.** The permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

28.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.040(a), 7/2/00]
[18 AAC 50.220(c)(1)(A) & 50.350(g), 1/18/97]
[40 C.F.R. 60, 7/1/99]

28.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.

[18 AAC 50.040(b), 50.220(c)(1)(B) & 50.350(g), 1/18/97]
[40 C.F.R. 61, 12/19/96]

28.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.

[18 AAC 50.040(c), 7/2/00]
[18 AAC 50.220(c)(1)(C) & 50.350(g), 1/18/97]
[40 C.F.R. 63, 7/1/99]

28.4 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures specified in Method 9 of Appendix A to 40 CFR 60.

[18 AAC 50.030, 12/30/00]
[18 AAC 50.220(c)(1)(D) & 50.350(g), 1/18/97]

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- 28.5 Source testing for emissions of particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.
- [18 AAC 50.040(a)(4), 7/2/00]
[18 AAC 50.220(c)(1)(E) & 50.350(g), 1/18/97]
[40 C.F.R. 60, Appendix A, 7/1/99]
- 28.6 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M.
- [18 AAC 50.035(b)(2), 7/2/00]
[18 AAC 50.220(c)(1)(F) & 18 AAC 50.350(g), 1/18/97]
[40 C.F.R. 51, Appendix M, 7/1/99]
- 28.7 Source testing for emissions of any contaminant may be determined using an alternative method approved by the department in accordance with 40 C.F.R. 63 Appendix A, Method 301.
- [18 AAC 50.040(c)(19), 7/2/00]
[18 AAC 50.220(c)(2) & 50.350(g), 1/18/97]
[40 C.F.R. 63, Appendix A, Method 301, 7/1/99]
- 29. Excess Air Requirements.** To determine compliance with this permit, standard exhaust gas volumes must only include the volume of gases formed from the theoretical combustion of fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions⁶
- [18 AAC 50.220(c)(3), 50.350(g) & 50.990(88), 1/18/97]
- 30. Test Deadline Extension.** The permittee may request an extension to a source test deadline established by the department. The permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the department's appropriate division director or designee.
- [18 AAC 50.345(l), 5/3/02]
- 31. Test Plans.** Before conducting any source tests, the permittee shall submit a plan to the department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the source will operate during the test and how the permittee will document this operation. A complete plan must be submitted within 60 days of receiving a request under condition 26 and at least 30 days before the scheduled date of any tests.
- [18 AAC 50.345(m), 18 AAC 50.350(b)(3) & 18 AAC 50.350(g), 5/3/02]
- 32. Test Notification.** At least ten days before conducting a source test, the permittee shall give the department written notice of the date and time the source test will begin.
- [18 AAC 50.345(n) & 18 AAC 50.350(b)(3), 5/3/02]

⁶ *Standard conditions* means dry gas at 70° F and an absolute pressure of 760 millimeters of mercury, as defined in 18 AAC 50.990(88) effective 7/2/00.

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- 33. Test Reports.** Within 60 days after completing a source test, the permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The permittee shall certify the results as set out in condition 36. If requested in writing by the department, the permittee must provide preliminary results in a shorter period of time specified by the department.

[18 AAC 50.345(o), 18 AAC 50.350(b)(3) & 18 AAC 50.350(h) – (i), 5/3/02]

- 34. Test Exemption.** The permittee is not required to comply with conditions 31, 32, and 33 (Test Plans, Test Notifications and Test Reports) when the exhaust is observed for visible emissions under the Method 9 Plan as described in condition 52.1.

[18 AAC 50.345(a), 5/3/02]

- 35. Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in conditions 4 and 14, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f) & 50.350(g), 1/18/97]

Section 9. General Recordkeeping, Reporting, and Compliance Certification Requirements

- 36. Certification.** The permittee shall certify all reports, compliance certifications, or other documents submitted to the department and required under the permit by including the signature of a responsible official for the permitted facility following the statement: “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.” Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. When certifying a compliance certification, the official’s signature must be notarized.

[18 AAC 50.205, 18 AAC 50.345(j), 18 AAC 50.350(b)(3) & 18 AAC 50.350(i), 5/3/02]

- 37. Submittals.** Unless otherwise directed by the department or this permit, the permittee shall send reports, compliance certifications, and other documents required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician.

[18 AAC 50.350(i), 1/18/97]

- 38. Information Requests.** The permittee shall furnish to the department, within a reasonable time, any information the department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the permittee shall furnish to the department copies of records required by this permit. The department, in its discretion, will require the permittee to furnish copies of those records directly to the federal administrator.

[18 AAC 50.200, 18 AAC 50.345(i), 18 AAC 50.350(b)(3) & 18 AAC 50.350(g) - (i), 5/3/02]

- 39. Recordkeeping Requirements.** The permittee shall keep all records required by this permit for at least five years after the date of collection, including:

[18 ACC 50.350(h), 1/18/97]

39.1 copies of all reports and certifications submitted pursuant to this section of the permit; and

39.2 records of all monitoring required by this permit, and information about the monitoring including:

- a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;
- b. sampling dates and times of sampling or measurements;
- c. the operating conditions that existed at the time of sampling or measurement;
- d. the date analyses were performed;

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- e. the location where samples were taken;
 - f. the company or entity that performed the sampling and analyses;
 - g. the analytical techniques or methods used in the analyses; and
 - h. the results of the analyses.

40. Excess Emissions and Permit Deviation Reports.

40.1 Except as provided in Condition 23, the permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

- a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commences or is discovered, report
 - (i) emissions that present a potential threat to human health or safety; and
 - (ii) excess emissions that the permittee believes to be unavoidable;
- b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or non-routine repair that causes emissions in excess of a technology based emission standard;
- c. report all other excess emissions and permit deviations
 - (i) within 30 days of the end of the month in which the emissions or deviation occurs or was discovered, except as provided in condition 40.1c(ii);
 - (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the department provides written permission to report under condition 40.1c(i);
 - (iii) for failure to monitor, as required in other applicable conditions of this permit.

40.2 When reporting excess emissions, the permittee must report using either the department's online form, which can be found at <http://www.state.ak.us/dec/dawq/aqm/eeform.pdf>, or, if the permittee prefers, the form contained in Section 14 of this permit. The permittee must provide all information called for by the form that is used.

40.3 When reporting a permit deviation, the permittee must report using the form contained in Section 14 of this permit. The permittee must provide all information called for by the form.

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- 40.4 If requested by the department, the permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

[18 AAC 50.235(a)(2), 50.240(c), & 50.350(i), 1/18/97; and 18 AAC 50.346(a)(3), 5/3/02]

41. NSPS and NESHAP Reports. The permittee shall:

- 41.1 attach to the facility operating report required by Condition 42, copies of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10 as required by conditions 8 and 16; and
- 41.2 upon request by the department, notify and provide a written copy of any EPA-granted waiver of the federal emission standards, record keeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules.

[18 AAC 50.040, 8/15/02 & 18 AAC 350(i)(2), 1/18/97]
[40 C.F.R. 60 & 61, 7/1/01]

42. Operating Reports. During the life of this permit, the permittee shall submit an original and two copies of an operating report by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

- 42.1 The operating report must include all information required to be in operating reports by other conditions of this permit.
- 42.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under condition 42.1, either
- a. The permittee shall identify
 - (i) the date of the deviation;
 - (ii) the equipment involved;
 - (iii) the permit condition affected;
 - (iv) a description of the excess emissions or permit deviation; and
 - (v) any corrective action or preventive measures taken and the date of such actions.
 - b. when excess emissions or permit deviations have already been reported under condition 40, the permittee may cite the date or dates of those reports.
- 42.3 The operating report must include a listing of emissions monitored under condition(s) 9, 52, and 55, which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The permittee shall include in the report

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- a. the date of the emissions;
 - b. the equipment involved;
 - c. the permit condition affected; and
 - d. the monitoring result which triggered the additional monitoring.

[18 AAC 50.346(b)(3), 5/3/02]

43. Annual Compliance Certification. Each year by March 31, the permittee shall compile and submit to the department an original and two copies of an annual compliance certification report as follows:

[18 AAC 50.350(j), 1/18/97]

43.1 For each permit term and condition set forth in Section 3 through Section 9, including terms and conditions for monitoring, reporting, and recordkeeping:

[18 AAC 50.350(d)(4), 1/18/97]

- a. certify the compliance status over the preceding calendar year consistent with the monitoring required by this permit;
- b. state whether compliance is intermittent or continuous; and
- c. briefly describe each method used to determine the compliance status.

43.2 Submit a copy of the report directly to the EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

[18 AAC 50.350(j), 1/18/97]

Section 10. Standard Conditions Not Otherwise Included in the Permit

44. The permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for
- 44.1 an enforcement action;
- 44.2 permit termination, revocation and re-issuance, or modification in accordance with AS 46.14.280; or
- 44.3 denial of an operating-permit renewal application.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (c), 5/3/02]
45. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (d), 5/3/02]
46. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (e), 5/3/02]
47. Compliance with permit terms and conditions is considered to be compliance with those requirements that are
- 47.1 included and specifically identified in the permit; or
- 47.2 determined in writing in the permit to be inapplicable.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (b), 5/3/02]
48. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the permittee for modification, revocation and re-issuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (f), 5/3/02]
49. The permit does not convey any property rights of any sort, nor any exclusive privilege.
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (g), 5/3/02]
50. The permittee shall allow the department or an inspector authorized by the department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to
- 50.1 enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;

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- 50.2 have access to and copy any records required by the permit;
 - 50.3 inspect any facility, equipment, practices, or operations regulated by or referenced in the permit; and
 - 50.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (h), 5/3/02]

Section 11. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.290, and based on information supplied in the facility application, this section of the permit contains the requirements determined by the department not to be applicable to the Pump Station 5 (PS-5) facility.

Table 2 identifies the sources that are not subject to the specified requirements at the time of permit issuance. Some of the requirements listed below may become applicable during the permit term due to an invoking event, even though the requirement is deemed inapplicable at the time of permit issuance.

- 51.** If any of the requirements listed in Table 2 become applicable during the permit term, the permittee shall comply with such requirements on a timely basis including, but not limited to, providing appropriate notification to EPA, obtaining a construction permit, and/or an operating permit revision.

Table 2 - Permit Shields Granted.

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
Source ID 11 <i>Incinerator:</i> 35-IN-1	18 AAC 50.050(a)(1) - Incinerator Emission Standards	Incinerator is not a “municipal wastewater treatment plant sludge incinerator,” because it does not incinerate any sludge, including wastewater treatment plant sludge.
	18 AAC 50.050(b) Incinerator Emission Standards	There is no PM grain loading standard for incinerators with a rated capacity less than 1000 pounds per hour, which combusts wastes containing less than 10 percent sewage sludge (dry basis), or serves less than 10,000 persons.
	40 C.F.R. 60 Subpart E - Standards of Performance for Incinerators	Charging rate capacity less than threshold (50 tons/day) [40 C.F.R. 60.50(a)].
	40 C.F.R. 60 Subparts Ca, Ea, and Eb Standards of Performance for Municipal Waste Combustors	Commenced construction prior to effective date of subparts and capacity less than threshold (250 tons/day). The source has not been modified or reconstructed since the effective date of the standard.
	40 C.F.R. 60 Subpart O Standards of Performance for Sewage Treatment Plants	The incinerator has not and does not combust wastes containing 10 percent sewage sludge (dry basis) produced by a municipal sewage treatment plant that combusts more than 1,000 kg sewage sludge (dry basis) per day.
	40 C.F.R. 61 Subpart E - National Emission Standards for Mercury	These sources does not combust sewerage sludge.
	40 C.F.R. 60.30e to 60.39e, not including 60.32e(c) - Subpart Ce - Emission Guidelines for Existing Hospital/Medical/Infectious Waste Incinerators (HMIWI).	Historical records show that the incinerator meets the exemption criteria specified in 40 CFR 60.32e(c)(3). However, the permit shield from 40 CFR 60 Subpart Ce does not apply if the requirements of Condition 7 are not met

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
Tank: Crude Oil Breakout	40 C.F.R. 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids	Commenced construction prior to effective date of subpart (May 18, 1978). The tank has not been modified or reconstructed since the effective date of the standard. The tank is a crude oil breakout tank (not storage vessel as defined in 40 C.F.R. 60) and part of a pipeline system as defined by 49 C.F.R. 195.2.
	40 C.F.R. 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Commenced construction prior to effective date of subpart (July 23, 1984). The tank has not been modified or reconstructed since the effective date of the standard. The tank is a crude oil breakout tank (not storage vessel as defined in 40 C.F.R. 60) and part of a pipeline system as defined by 49 C.F.R. 195.2.
	40 C.F.R. 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids	Subpart K is a work practice standard. In the case <i>Adamo Wrecking</i> , 434 US 257 (1978), the U.S. Supreme Court determined that work practices standards were not authorized by the Clean Air Act. The EPA documented this decision for purposes of Subpart K in a memorandum dated August 10, 1979. EPA transmitted a specific letter to Alyeska stating the application of the decision for the crude oil tanks. Therefore, Subpart K is not enforceable. In addition, the tank was not modified or reconstructed during the applicable time period of Subpart K.
Tank: Fuel Oil Tank	40 C.F.R. 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids	Commenced construction prior to effective date of subpart (May 18, 1978). The tank has not been modified or reconstructed since the effective date of the standard. In addition, diesel fuel oils are excluded from the definition of a petroleum liquid [40 CFR 60.111a(b)].
	40 C.F.R. 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Commenced construction prior to effective date of subpart (July 23, 1984). The tank has not been modified or reconstructed since the effective date of the standard.
	40 C.F.R. 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids	Subpart K is a work practice standard. In the case <i>Adamo Wrecking</i> , 434 US 257 (1978), the U.S. Supreme Court determined that work practices standards were not authorized by the Clean Air Act. The EPA documented this decision for purposes of Subpart K in a memorandum dated August 10, 1979. EPA transmitted a specific letter to Alyeska stating the application of the decision for the crude oil tanks. Therefore, Subpart K is not enforceable. In addition, the tank was not modified or reconstructed during the applicable time period of Subpart K, and diesel fuel oils are excluded from the definition of a petroleum liquid [40 CFR 60.111(b)].
Source ID 1 <i>Gas Turbine</i> 35-G-4AT	40 CFR 60 Subpart GG – Standards of Performance for Stationary Gas Turbines.	Commenced construction prior to effective date of subpart (10/3/77). At the time of this application, turbines have not been modified or reconstructed, as defined in 40 CFR 60.14 or 60.15 respectively.

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
Source ID(s) 2 & 3⁷ <i>Gas Turbine</i> 35-P-3AT 35-P-3BT	<u><i>This shield NOT granted for Source ID(s) 2 or 3 when operated with s/n 0753s21, s/n 0756s21, or another turbine subject to the requirements of NSPS Subpart GG</i></u>	
	40 CFR 60 Subpart GG – Standards of Performance for Stationary Gas Turbines.	Commenced construction prior to effective date of subpart (10/3/77). At the time of this application, turbines have not been modified or reconstructed, as defined in 40 CFR 60.14 or 60.15 respectively.
Source ID(s) 2 & 3⁸ <i>Gas Turbine:</i> 35-P-3AT 35-P-3BT	<u><i>These shields granted for Source ID(s) 2 or 3 ONLY WHEN OPERATED with s/n 0753s21 or s/n 0756s21</i></u>	
	40 CFR 60 Subpart GG – Standards of Performance for Stationary Gas Turbines: Subpart 60.332(a)(1) – Standards for NO _x	Standard applies to Electric Utility Stationary Gas Turbines, as defined in 40 CFR 60.331(q). These sources do not provide any electric power to utility power distribution systems [40 CFR 60.332(b)]
	§60.334(a) - Monitoring of Operations §60.335(c)(1) - Test Methods and Procedures	Applies only to affected turbines equipped with water injection to control emissions of NO _x . Source is not equipped with water or steam injection to control emissions of NO _x . The turbines meet the standard without controls.
	§60.334(b) - Monitoring of Operations (Fuel Nitrogen Only) §60.335(a) - Test Methods and Procedures	EPA Region X waived fuel nitrogen monitoring for NSPS affected stationary gas turbines (ref. correspondence dated 12/29/82).
	40 C.F.R. 60 Subpart A - General Provisions §60.7(a)(1), (2) & (3) – Notification and Recordkeeping §60.8(a) - Performance Test (Initial Performance Test Only)	Notifications required by Subpart A were required. These requirements were one-time requirements [EPA Region X waived performance test requirements (ref. Correspondence dated 2/9/84)]
	§60.7(a)(4) - Notification and Recordkeeping	This requirement only applies to “existing facilities”, as defined in 40 C.F.R. 60.2.

⁷ Note: At the time of permit issuance, Source ID 3 contained a turbine subject to NSPS Subpart GG. Therefore this shield is not granted for Source ID 3 until such time that a non-NSPS turbine is used in its place.

⁸ Note: At the time of permit issuance, Source ID 3 contained a turbine subject to NSPS Subpart GG. These shields therefore apply to Source ID 3 only. These shields do not apply to Source ID 2 until such time that either turbine with s/n 0753s21 or s/n 0756s21 is used in the Source ID 2 position.

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
Source ID(s) 4 – 6 <i>Gas Turbines:</i> 35-G-1AT 35-G-1BT 35-G-2AT	40 C.F.R. 60 Subpart GG - Standards of Performance for Stationary Gas Turbines	Maximum heat input capacity at peak load less than 10.7 gigajoules per hour (10 MMBtu/hr) (based on lower heating value of fuel fired)
Source ID(s) 7 & 8 <i>Eclipse Therminol Heaters:</i> 35-H-1A 35-H-1B	40 C.F.R. 60 Subpart Dc	Commenced construction prior to effective date of subpart (6/9/89). At the time of this application, boilers have not been modified or reconstructed, as defined by 40 C.F.R. 60.14 or 60.15, respectively.
Facility-Wide	40 C.F.R. 60 Subpart LLL - Standards of Performance for Onshore Natural Gas Processing Plants	Facility does not process natural gas [40 C.F.R. 60.640] and commenced construction prior to effective date of subpart (January 20, 1984). Facility has not been modified or reconstructed since the effective date of the standard.
Facility-Wide	40 C.F.R. 61 Subpart A - General Provisions	Other than the asbestos renovation and demolition requirements of Subpart M this subpart does not apply to this facility because it only applies where there are subparts applicable to the facility and no other Part 61 subparts apply to this facility.
Facility-Wide	40 C.F.R. 61 Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene	No process components in <i>benzene service</i> , as defined by subpart (10 percent benzene by weight) [40 C.F.R. 61.110 and 61.111].
Facility-Wide	40 C.F.R. 61 Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources)	No process components in <i>volatile hazardous air pollutant (VHAP) service</i> , as defined by subpart (≥ 10 percent VHAP by weight) [40 C.F.R. 61.241 and 61.245]. This subpart only applies where identified by another applicable Part 61 subpart [40 C.F.R. 61.240].
Facility-Wide	40 C.F.R. 61 Subpart Y - National Emission Standard for Benzene Emissions from Benzene Storage Vessels	The facility does not have storage tanks that store benzene as defined by the standards in 40 C.F.R. 61.270(a).
Facility-Wide	40 C.F.R. 61 Subpart BB - National Emission Standard for Benzene Emissions from Benzene Transfer Operations	Crude oil and petroleum distillates are exempt from this subpart [40 C.F.R. 61.300]. Other than crude oil and other petroleum distillates there are no other benzene containing substances where loading occurs at this facility.
Facility-Wide	40 C.F.R. 61 Subpart FF - National Emission Standard for Benzene Waste Operations	This subpart only applies to chemical manufacturing plants, coke byproduct recovery plants and petroleum refineries [40 C.F.R. 61.340]. This facility does not include any of those activities.
Facility-Wide	40 C.F.R. 61 Subpart M - National Emission Standard for Asbestos §61.142 - Standard for Asbestos	Facility is not an Asbestos Mill.

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
	Mills	
Facility-Wide	§61.144 - Standard for Manufacturing	Facility does not engage in any manufacturing operations using commercial asbestos.
Facility-Wide	§61.146 - Standard for Spraying	Facility does not spray or apply asbestos containing materials.
Facility-Wide	§61.147 - Standard for Fabricating	Facility does not engage in any fabricating operations using commercial asbestos.
Facility-Wide	§61.149 - Standard for Waste Disposal for Asbestos Mills	Applies only to those facilities subject to 40 C.F.R. 61.142 (Asbestos Mills).
Facility-Wide	§61.151 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Applies only to those facilities subject to 40 C.F.R. 61.142, 61.144, or 61.147 (Asbestos Mills, manufacturing or fabricating).
Facility-Wide	§61.153 - Standard for Reporting	No reporting requirements apply for sources subject to 40 C.F.R. 61.145 (demolition and renovation) [40 C.F.R. 61.153(a)].
Facility-Wide	§61.154 - Standard for Active Waste Disposal Sites	Facility not an active waste disposal site and does not receive asbestos containing waste material.
Facility-Wide	§61.155 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Facility does not process regulated asbestos containing material (RACM).
Facility-Wide	40 C.F.R. 63 Subpart T - National Emission Standards for Halogenated Solvent Cleaning	Facility does not operate halogenated solvent cleaning machines.
Storage Tanks	40 C.F.R. 63 Subpart OO - National Emission Standards for Tanks - Level 1	Provisions only apply to tanks subject to a subpart of 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart OO. The facility does not include any tanks subject to any subpart of Part 60, 61, or 63.
Portable Storage Containers	40 C.F.R. 63 Subpart PP - National Emission Standards for Containers	Provisions only apply to portable containers, as defined in §63.921, subject to a subpart of 40 C.F.R. 60, 61, or 63 that specifically references 40 C.F.R. 63 Subpart PP. The facility does not include any containers subject to any subpart of Part 60, 61, or 63.
Drain Systems	40 C.F.R. 63 Subpart RR - National Emission Standards for Individual Drain Systems	Provisions only apply to drain systems affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart RR. The facility does not include any drain systems subject to any subpart of Part 60, 61,

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
		or 63 [40 C.F.R. 63.960].
Oil-Water Separators	40 C.F.R. 63 Subpart VV - National Emission Standards for Oil-Water Separators and Organic-Water Separators	EPA stated that these provisions were placed within this standard only for convenience and only where a facility is subject to another Part 60, 61, or 63 subpart that references Subpart VV [40 C.F.R. 63.1040]. This facility is not subject to any subpart in Part 60, 61, or 63 that references Subpart VV.
Facility-Wide	40 C.F.R. 68 - Accidental Release: Risk Management Plan (RMP)	Part 68 applies to “stationary sources” [40 C.F.R. 68.10]. “Stationary source” is defined for the purposes of Part 68 to exclude facilities engaged in the transportation of hazardous liquids and subject to 49 CFR Parts 192, 193, and 195 [40 CFR 68.3]. TAPS PS_5 transports and stores crude oil subject to the federal Pipeline Safety Act and 49 CFR Part 195. The transportation of crude oil by this pump station and the incidental storage in the pump station breakout tank are not activities that fall within the definition of a stationary source. Therefore, Part 68 does not apply to PS-5. There are not threshold quantities or other 112(r) regulated substances at PS-5. Therefore, Part 68 does not apply to PS-5.
Facility-Wide	40 C.F.R. 82.1 Subpart A - Production and Consumption Controls	Facility does not produce, transform, destroy, import or export Class 1 or Group I or II substances or products.
Facility-Wide	40 C.F.R. 82.30 Subpart B - Servicing of Motor Vehicle Air Conditioners	Facility does not service motor vehicle air conditioners.
Facility-Wide	40 C.F.R. 82.60 Subpart C - Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances	Facility does not manufacture or distribute Class I and II products or substances.
Facility-Wide	40 C.F.R. 82.80 Subpart D - Federal Procurement	Subpart applies only to Federal departments, agencies, and instrumentalities.
Facility-Wide	40 C.F.R. 82.100 Subpart E - The Labeling of Products Using Ozone-Depleting Substances	Facility does not manufacture or distribute Class I and II products or substances.
Facility-Wide	40 C.F.R. 82.158 Subpart F - Recycling and Emissions Reduction	Facility does not manufacture or import recovery and recycling equipment.
Facility-Wide	40 C.F.R. 82.160 - Recycling and Emissions Reduction	Facility does not contract equipment testing organizations to certify recovery and recycling equipment.
Facility-Wide	40 C.F.R. 82.164 - Recycling and Emissions Reduction	Facility does not sell reclaimed refrigerant.

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
Facility-Wide	18 AAC 50.055(a)(2) - (a)(9)	Facility does not operate sources specific to the listed standards.
Facility-Wide	18 AAC 50.055(b)(2) - (b)(6)	Facility does not operate sources specific to the listed standards.
Facility-Wide	18 AAC 50.055(d) - (f)	Facility does not operate sources specific to the listed standards.
Facility-Wide	18 AAC 50.055(g)	The facility does not emit any emissions from a stack other than process emissions, products of combustion, or materials introduced to control pollutant emissions without the approval of the department. Incinerators are not fuel burning equipment as defined in 18 AAC 50.990(40). Therefore the solid waste incinerators are exempt from this requirement.
Facility-Wide	18 AAC 50.075	Facility sources do not combust wood.

[18 AAC 50.350(l), 1/18/97]

Section 12. Visible Emissions and PM Monitoring, Recordkeeping and Reporting

All Fuel Burning Equipment

- 52. Visible Emissions Monitoring.** When burning liquid fuel for more than 400 hours per source in any calendar year the permittee shall observe the exhaust of Source ID(s) 1 - 10 for visible emissions using the Method 9 Plan under condition 52.1.

[18 AAC 50.350(g), 1/18/97 & 18 AAC 50.346(c), 5/3/02]

52.1 Method 9 Plan. For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.

- a. First Method 9 Observation. Observe exhaust for 18 minutes within the first 30 days of operation of the source after 400 hours of operation on liquid fuel in any calendar year.
- b. Monthly Method 9 Observations. After satisfying 52.1a, for any month the source operates equal to or more than 12 hours then perform an 18-minute observation during the following calendar month. If the source does not operate 12 hours in that following month, then perform the 18-minute observation during the next calendar month the source does operate for 12 hours or more. There shall be only three monthly observations per source under this condition.
- c. Semiannual Method 9 Observations. After satisfying 52.1b, perform an 18-minute observation during any calendar month in the next consecutive 6-month period if the source continues to operate at least 12 hours in each month of the 6-month cycle. Complete two observations under this schedule, and each observation must be during the second, third or fourth month of each six-month cycle. If the source exhibits a six-minute average greater than 15 percent and one or more observations are greater than 20 percent, observe emissions in accordance with 52.1e.
- d. Annual Method 9 Observations. After satisfying 52.1c, perform an 18-minute observation during the next 12-month period if the source continues to operate at least 12 hours in any calendar month of the 12-month cycle. Complete a single observation each 12-month cycle, and each observation must be during the fourth, fifth, sixth, seventh, eight or ninth month of each 12 month cycle. If the source exhibits a six-minute average greater than 15 percent during and one or more observations are greater than 20 percent, then comply with 52.1e.

-
- e. Increased Method 9 Frequency. If a six-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more observations are greater than 20 percent, then increase or maintain the 18-minute observation frequency for that source to monthly observations in accordance with condition 52.1b, until the criteria in condition 52.1c for semiannual monitoring are met.

53. Visible Emissions Record Keeping. The permittee shall keep records in accordance with this condition.

[18 AAC 50.350(h), 1/18/97 & 18 AAC 50.346(c), 5/3/02]

53.1 the observer shall record

- a. the name of the facility, emissions source and location, facility type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet in below;
- b. the time, estimated distance to the emissions location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate) on the sheet at the time opacity observations are initiated and completed;
- c. the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;
- d. opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation Record in this Section; and
- e. the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

53.2 to determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet;

- a. calculate and record the highest 18-consecutive-minute average observed.

54. Visible Emissions Reporting. The permittee shall report, in each facility operating report under Condition 42, visible emissions as follows:

[18 AAC 50.350(i), 1/18/97 & 50.346(c), 5/3/02]

54.1 for each source under the Method 9 Plan,

-
- a. copies of the observation results (i.e. opacity observations) for each source that used the Method 9 Plan, except for the observations the permittee has already supplied to the department; and
 - b. a summary to include:
 - (i) number of days observations were made;
 - (ii) highest six-minute average observed; and
 - (iii) dates when one or more observed six-minute averages were greater than 20 percent;
- 54.2 a summary of any monitoring or record keeping required under conditions 52 and 53 that was not done;
- 54.3 report as excess emissions or permit deviation under condition 40:
- a. the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and
 - b. if any monitoring under condition 52 was not performed when required, report within three days of the date the monitoring was required.

Particulate Matter from Diesel Engines and Liquid Fired Turbines (Source IDs 1 – 6)

55. Particulate Matter Monitoring. The permittee shall conduct source tests on diesel engines and liquid-fired turbines, Source IDs 1 – 6, if operated on liquid fuel over 400 hours per calendar year, to determine the concentration of particulate matter (PM) in the exhaust of a source in accordance with this condition 55.

[18 AAC 50.350(g), 1/18/97 & 50.346(c), 5/3/02]

- 55.1 Within six months of exceeding the criteria of condition 55.2a or 55.2b, either
- a. conduct a PM source test according to conditions 28 - 35; or
 - b. make repairs so that emissions no longer exceed the criteria of condition 55.2; to show that emissions are below those criteria, observe emissions as described in condition 52.1 under load conditions comparable to those when the criteria were exceeded.
- 55.2 Conduct the test according to condition 55 if
- a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent; or

-
- b. for a source with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the department has waived this requirement in writing.

55.3 During each one hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one hour test run. Submit a copy of these observations with the source test report.

55.4 The automatic PM source test requirement in condition 55.1 and 55.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

56. Particulate Matter Record Keeping. Within 180 calendar days after the effective date of this permit, the permittee shall record the exhaust stack diameter(s) of Source ID(s) 1 – 6. Report the stack diameter(s) in the next operating report under Condition 42.

[18 AAC 50.350(h) & 50.346(c), 5/3/02]

57. Particulate Matter Reporting. The permittee shall report as follows:

[18 AAC 50.350(i), 1/18/97 & 50.346(c), 5/3/02]

57.1 report under condition 40

- a. the results of any PM source test that exceeds the PM emissions limit; or
- b. if one of the criteria of condition 55.2 was exceeded and the permittee did not comply with either condition 55.1a or 55.1b, this must be reported by the day following the day compliance with condition 55 was required;

57.2 report observations in excess of the threshold of condition 55.2b within 30 days of the end of the month in which the observations occur;

57.3 in each facility operating report under condition number 42, include

- a. the dates, source IDs, and results when an observed 18-minute average was greater than an applicable threshold in condition 55.2;
- b. a summary of the results of any PM testing under condition 55; and
- c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of condition 55.2, if they were not already submitted.

Particulate Matter from Liquid Fired Boilers and Heaters (Source IDs 7 – 10)

- 58. Particulate Matter Monitoring.** If operated for more than 400 hours per calendar year and more than 12 hours per month on liquid fuel, the permittee shall conduct source tests on Source IDs 7 – 10 to determine the concentration of PM in the exhaust of Source IDs 7 – 10 as follows:

[18 AAC 50.350(g), 5/3/02]

- 58.1 If corrective maintenance performed within the first 180 days of exceeding the visible emissions standard in Condition 3, as observed under Condition 52.1, fails to eliminate visible emissions greater than 20 percent opacity, conduct a PM source test according to the requirements set out in Section 8 within 90 days. To show that the emissions are below the 20% opacity criteria, observe emissions as described in condition 52.1 under load conditions comparable to those when the criteria was exceeded.
- 58.2 During each one hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one hour test run. Submit a copy of these observations with the source test report.
- 58.3 The PM source test requirement in condition 58 is waived for an emission unit if:
- a. a PM source test on that unit has shown compliance with the PM standard during this permit term, or
 - b. if a follow-up visible emission observation conducted using Method-9 during the 90 days shows that the excess visible emissions described in condition 58.1 no longer occur.

- 59. Particulate Matter Record Keeping.** The permittee shall keep records of the results of any PM testing and visible emissions observations conducted under conditions 58.1 and 58.2.

[18 AAC 50.350(h), 5/3/02]

60. Particulate Matter Reporting. The permittee shall report as follows:

60.1 In each facility operating report required by Condition 42, include:

- a. The dates, Source ID(s), and results when an 18-minute opacity observation was greater than the applicable threshold criterion in 58.1.
- b. A summary of the results of any PM testing and visible emissions observations conducted under conditions 58.1 and 58.2.

60.2 Report excess emissions, in accordance with Condition 40, any time the results of a source test for PM exceeds the PM emission limit stated in Condition 4.

[18 AAC 50.350(i), 5/3/02]

Section 13. Visible Emission Forms

Visible Emissions Field Data Sheet

Certified Observer: _____

Company: _____

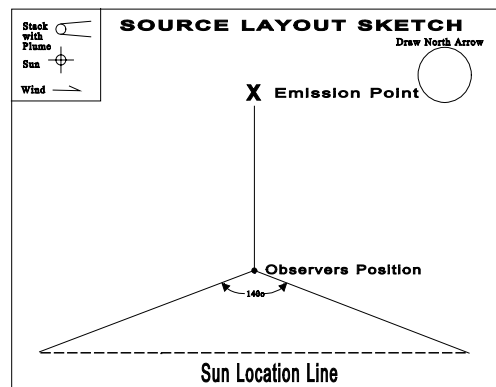
Location: _____

Test No.: _____ Date: _____

Source: _____

Production Rate, Operating Rate &
Unit Operating Hours: _____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location					
Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions					
Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description:					
Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

Page ____ of ____

Test Number	Clock time
-------------	------------

[illegible]

Observer Signature

Number of Observations exceeding 20%

Set Number	Time Start—End	Opacity	
		Sum	Average

Section 14. ADEC Notification Form

Fax this form to: (907) 269-7508 Telephone: (907) 269-8888

Alyeska Pipeline Service Company

Company Name

Trans Alaska Pipeline System - Pump Station 5 (PS-5)

Facility Name

Reason for notification:

☐ **Excess Emissions**

If you checked this box

Fill out section 1

☐ **Other Deviation from Permit Condition**

If you checked this box

fill out section 2

When did you discover the Excess Emissions or Other Deviation:

Date: __/__/__ Time:__:__

Section 1. Excess Emissions**(a) Event Information (Use 24-hour clock):**

	START Time: (hr:min):	END Time:	Duration
Date: _____	_____:	_____:	_____:
Date: _____	_____:	_____:	_____:
		Total:	_____:

(b) Cause of Event (Check all that apply):

<input type="checkbox"/> START UP	<input type="checkbox"/> UPSET CONDITION	<input type="checkbox"/> CONTROL EQUIPMENT
<input type="checkbox"/> SHUT DOWN	<input type="checkbox"/> SCHEDULED MAINTENANCE	<input type="checkbox"/> OTHER _____

Attach a detailed description of what happened, including the parameters or operating conditions exceeded.

(c) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____

(d) Emission Limit Potentially Exceeded

Identify each emission standard potentially exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Identify what observation or data prompted this report. Attach additional sheets as necessary.

Permit Condition	Limit	Emissions Observed
_____	_____	_____
_____	_____	_____

(e) Excess Emission Reduction:

Attach a description of the measures taken to minimize and/or control emissions during the event.

(f) Corrective Actions:

Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence.

(g) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable?

☐ YES ☐ NO

Do you intend to assert the affirmative defense of 18 AAC 50.235?

☐ YES ☐ NO

Section 2. Other Permit Deviations

(a) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(b) Permit Condition Deviation:

Identify each permit condition deviation or potential deviation. Attach additional sheets as necessary.

Permit Condition	Potential Deviation
_____	_____
_____	_____
_____	_____

(c) Corrective Actions:

Attach a description of actions taken to correct the deviation or potential deviation and to prevent recurrence.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name:

Signature:

Date

Alaska Department of Environmental Conservation

Air Permits Program

January 28, 2003

Alyeska Pipeline Service Company

Trans Alaska Pipeline System - Pump Station 5 (PS-5)

STATEMENT OF BASIS

of the terms and conditions for

Permit No. 098TVP01

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INTRODUCTION

This document sets forth the legal and factual basis for the terms and conditions of Operating Permit No.098TVP01. The "Statement of Basis" only serves to provide background information regarding the terms and conditions contained the Operating Permit No. 098TVP01. This document does not create nor impose any requirements on the permittee.

The purpose of Pump Station 5 is to support the transportation of crude oil by TAPS. Its primary function is as a relief station for crude oil when crude oil must be diverted to the breakout tank as a part of pipeline operations. The operation of Pump Station 5 is supported by several auxiliary activities due to its remote location, including electric power generation, personnel facilities, and other maintenance and support facilities. Solid waste produced at the station is burned in an on-site incinerator.

FACILITY IDENTIFICATION

Section 1 contains information on the facility as provided in the title V permit application.

The facility is owned by Amerada Hess Pipeline Corp., BP Pipelines (Alaska) Inc., ExxonMobil Pipeline Company, Phillips Alaska Transportation, Inc., Unocal Pipeline Company, and Williams Alaska Pipeline Company, LLC. Alyeska Pipeline Service Company is the operator of the facility and is the permittee for the facility's operating permit.

SOURCE INVENTORY AND DESCRIPTION

As provided in the application, the facility contains the following regulated sources: six diesel turbines for pumps and generators, two diesel fired heaters, two diesel fired boilers, and a solid waste incinerator. The majority of the sources at the facility commenced construction and were installed prior to 1977.

The sources at the facility regulated in Operating Permit No.098TVP01 are identified and described in Table 1 in Section 3 of the permit. The table is provided for information and identification purposes only. Specifically, the source rating/size provided in the table is not intended to create an enforceable limit.

There are several storage tanks located at Pump Station 5 that are not required to be identified under 18 AAC 50.350(d)(2) because the tanks are not subject to an emission standard of other source specific requirements. A permit shield has been granted for the Crude Oil Breakout Tank (150,000 barrel capacity) and the Fuel Oil Tank (20,000 barrel capacity). As such, there are no NSPS requirements for these two tanks and they are not required under 18 AAC 50.350(d)(2) to be identified in Table 1. Furthermore, the Gasoline Tank (10,500 gallon capacity) is not subject to a requirement under 18 AAC 50.350(d)(1) and therefore is not listed in Table 1. These sources are not considered "insignificant" under 18 AAC 50.350(m), however there is no requirement for identifying these sources under 18 AAC 50.350(d).

EMISSIONS

Table 1 contains emission information as provided in the application. A summary of the potential to emit (PTE)⁹ from the Pump Station 5 facility is shown in the table below.

Table A - Emissions Summary, in Tons Per Year (tpy)

Pollutant	NO _x	CO	PM-10	SO ₂ ¹⁰	VOCs	Total
PTE	191.4	139.3	14.6	123.4	9.3	478.0
Assessable PTE	191.4	139.3	14.6	123.4	0	468.7

The assessable PTE listed under condition 1.2 is the sum of the emissions of each individual regulated air contaminant for which the facility has the potential to emit quantities greater than 10 tpy. Emissions from Source IDs 1 – 3 were calculated based on manufacturer's data and EPA's AP-42 factors. All other emissions calculations are based on EPA's AP-42 factors. Hazardous Air Pollutant (HAPs) emissions from all permitted sources except for Source ID 11 were calculated using GRI HAP-Calc 3.01 software.

The VOCs at this facility consist of 0.2 tons per year of Hazardous Air Pollutants and 9.1 tons per year of non-hazardous volatile organic compounds. Other HAPs at this facility consist of 2.2 TPY of HCl from the incineration of 10% of waste as medical waste. No factors for HAPs exist in AP-42 for non-municipal waste combustors therefore the HAPs contribution from waste combustion, not including medical waste combustion, cannot be determined.

The emissions listed in Table A are estimates that are for informational use only. The listing of the Emissions does not create an enforceable limit for the facility.

BASIS FOR REQUIRING AN OPERATING PERMIT

Section 2 includes a description of the regulatory classifications of the Pump Station 5 facility. This facility requires an operating permit under 18 AAC 50.325(b)(1) because it has the potential to emit 100 tons per year (tpy) or more of a regulated air contaminant. The facility also requires an operating permit under 18 AAC 50.325(b)(3) because it is authorized to contain sources subject to federal NSPS standards adopted by reference in 18 AAC 50.040(a) – (c).

⁹ *Potential to Emit* or *PTE* means the maximum quantity of a release of an air contaminant, considering a facility's physical or operational design, based on continual operation of all sources with the facility for 24 hours a day, 365 days a year, reduced by the effect of pollution control equipment and approved state or federal limitations on the capacity of the facility's sources or the facility to emit an air contaminant, including the limitations such as restrictions on hours of rate of operation and type or amount of material combusted, stored, or processed. . . as defined in AS 46.14.990(21), effective 1/18/97.

¹⁰ The PS 5 facility's SO_x potential to emit has been calculated using AP-42 factors and has assumed a liquid fuel sulfur content of 0.24%. There are no permit requirements that limit the fuel sulfur content to 0.24%, however historical facility operating report data for PS5 has shown an average liquid fuel sulfur content for diesel burned at the facility of 0.1%.

Alaska regulations require operating permit applications to include identification of “regulated sources.” As applied to the Pump Station 5 facility, the state regulations require a description of:

- ⇒ Each incinerator, including a demonstration showing each requirement in 18 AAC 50.050, Incinerator Emissions Standards, that applies, under 18 AAC 50.335(e)(4)(A);
- ⇒ Each source regulated by a standard in 18 AAC 50.055, Industrial Processes and Fuel Burning Equipment, under 18 AAC 50.335(e)(4)(C);
- ⇒ Each source subject to a standard adopted by reference in 18 AAC 50.040 under 18 AAC 50.335(e)(2); and

The emission sources at the Pump Station 5 facility classified as “regulated sources” according to the above department regulations are listed in Table 1 of Operating Permit No.098TVP01.

CURRENT AIR QUALITY PERMITS

Previous Air Quality Permit to Operate

No previous air quality control permit-to-operate exists for this facility.

Construction Permits

No construction permits have been issued for this facility after January 18, 1997 (the effective date of the new divided operating and construction-permitting program).

Title-V Operating Permit Application History

The owner or operator submitted an application on October 31, 1997.

The owner or operator amended this application on December 5, 1997 and March 23, 1999.

An additional supplement to the PS 5 Operating Permit Application was provided in March 2000, and June 2000.

COMPLIANCE HISTORY

The facility has operated at its current location since 1977. Review of the permit files for this facility, which includes the facility operating reports indicate a facility generally operating in compliance with state and federal regulations.

LEGAL AND FACTUAL BASIS FOR THE PERMIT CONDITIONS

Legal Basis: The state and federal regulations for each condition are cited in Operating Permit No.098TVP01.

Conditions 1 - 2, Fee Requirements

Applicability: The regulations require all permits to include due dates for the payment of fees and any method the permittee may use to re-compute assessable emissions.

Factual Basis: These standard conditions require the permittee to pay fees in accordance with the department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The default assessable emissions are emissions of each air contaminant authorized by the permit (AS 46.14.250(h)(1)(A)) that the facility has the potential to emit in quantities greater than 10 tons per year. Air contaminant means any regulated air contaminant and any hazardous air contaminant. Therefore, assessable emissions under 18 AAC 50.410(b) means the potential to emit any air contaminant identified in the permit, in quantities greater than 10 tons per year, including those not specifically limited by the permit.

The conditions also describe how the permittee may calculate **actual** annual assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air contaminant. Therefore, fees based on actual emissions must also be paid on any contaminant emitted whether or not the permit contains any limitation of that contaminant.

If the permittee does not choose to annually calculate assessable emissions, emissions fees will be based on "potential to emit" (PTE).

For purposes of establishing the assessable PTE estimate as provided in the condition, a liquid fuel sulfur content of 0.24% was assumed for use in calculating the SO₂ portion of the facility's total emissions. The facility is not limited on fuel sulfur content. If the permittee elects to re-calculate the assessable emissions based on facility actual emissions, the sulfur dioxide emission estimates should be based upon the actual sulfur content of the fuel used.

Conditions 3, 4, and Section 12, Visible Emissions and PM Monitoring Plan

Applicability: Heaters, turbines, and engines are fuel-burning equipment. The visible emission standard under 18 AAC 50.055(a)(1) and the particulate matter standard under 18 AAC 50.055(b)(1) applies to all fuel-burning equipment.

Factual Basis: Conditions 3 and 4 requires that the permittee comply with the visible emission and particulate standard of 18 AAC 50.055. The permittee shall not cause or allow the equipment to violate these standards. To ensure compliance, the permittee is required to monitor emissions for the liquid fired fuel burning equipment operated over 400 hours per calendar year in accordance with the visible emissions and PM monitoring plan contained in Section 12.

The Particulate Matter monitoring, recordkeeping, and reporting conditions for diesel fired heaters and boilers has been written as facility specific requirements that are similar to the

PM standard condition requirements for diesel turbines and engines. The intent of these conditions is to require periodic monitoring, recordkeeping, and reporting, for Source IDs 7 – 10 in accordance with 18 AAC 50.350 (g) – (i).

For Sources ID 1 to 10, visible and PM emissions monitoring is waived in accordance with recently issued Department Guidance AWQ 02-014 as long as the units are not operated more than 400 hours per calendar year on liquid fuel. The permittee is not required to start-up a source on liquid fuel for the sole purpose of conducting a visible emissions observation.

Condition 5, Sulfur Compound Emissions

Applicability: The sulfur emission standard applies to operation of all fuel-burning equipment in the State of Alaska. Source IDs 1 - 10 are fuel-burning equipment. The SIP standard for sulfur dioxide applies because it is contained in the federally approved SIP dated October, 1983. Monitoring of sulfur dioxide emissions is accomplished by analysis of fuel sulfur content.

Factual basis: The condition requires the permittee to comply with the 500 ppmv sulfur emission standard applicable to fuel-burning equipment. The permittee may not cause or allow their equipment to violate this standard. The monitoring and recordkeeping requirements of this condition have been modified from the language of standard condition XI – SO₂ Emissions from Oil Fired Fuel Burning Equipment based on facility specific considerations. The permittee has requested consideration of facility specific fuel sulfur monitoring requirements in previous permits for other Alyeska Pump Station facilities to maintain consistency in monitoring requirements. The request to modify this condition from the standard condition language has been granted on the basis that the Pump Station 5 facility has demonstrated a history of fuel use with a sulfur content well below 0.75% sulfur (approximately 0.1% sulfur).

Monitoring -

Diesel Fuel (Fuel Oil) sulfur is measured in weight percent sulfur (wt% S). The department has determined that fuel containing no more than 0.75 wt% S will always comply with the emission standard. This is true for all liquid hydrocarbon fuels, even with no excess air. Due to the large compliance margin associated with the types of distillate fuels the facility burns and the unlikelihood of a potential sulfur compound emission limit exceedance, the permittee is only required to monitor the fuel sulfur in accordance with Condition 5.1. If fuel is obtained that has a higher sulfur content than 0.75% S by weight, the permittee is required to calculate the exhaust gas SO₂ concentration using the Standard Operating Permit Condition XII – SO₂ Material Balance Calculation, adopted by reference in 18 AAC 50.346(c) to calculate the exhaust gas SO₂ concentration. If the exhaust concentration is found to exceed the 500 ppm standard, the permittee is required to report in accordance with Condition 40.

ASTM test methods D2880-87 and D4294-98 have been deemed appropriate by the department for use in former air permits for the testing of fuel sulfur content at other pump station facilities. These methods or later versions, or other listings under 18 AAC 50.035, or an alternative method approved by the department, may be used for the testing of fuel sulfur for liquid fuels used at this facility.

Condition 6, Incinerator Visible Emissions

Applicability: This visible emission standard of 18 AAC 50.050(a) applies to the incinerator located at the facility.

Factual Basis: The condition requires the permittee to comply with the visible emission standard applicable to incinerators. The permittee may not cause or allow their incinerator to violate this standard.

The permittee is required to monitor, record and report according to Condition 6.1. The permittee is not required to monitor particulate matter because there is no particulate matter emission standard for incinerators with a rated capacity of less than 1000 pounds per hour.

Condition 7, Hospital/Medical/Infectious Waste Incineration

Applicability: 40 CFR 60 Subpart Ce applies to each incinerator that was constructed prior to June 20, 1996 that burns Hospital/Medical/Infectious Waste.

Factual Basis: The solid waste incinerator located at PS 5 occasionally burns small quantities of hospital/medical/infectious wastes. The permittee has notified the federal Administrator of an exemption claim pursuant to 40 CFR 60.32e(c) and 40 CFR 62.144000(c). For the exemption claim to continue to apply, the permittee must maintain records demonstrating that the total quantity (pounds) of medical/infectious wastes burned does not exceed 10 percent of the total waste (pounds) incinerated on a calendar quarter basis.

Condition 8 - 10, NSPS Subpart A and GG Requirements

Applicability: NSPS Subpart GG applies to stationary gas turbines with a heat input at peak load (maximum load at 60 percent relative humidity, 59 degrees F, and 14.7 psi) equal to or greater than 10.7 gigajoules per hour (10 MMBtu/hr), based on the lower heating value of the fuels fired and constructed, modified, or reconstructed after October 3, 1977. Source IDs 2 –3 may operate using Solar turbine engine s/n 0753s21 or s/n 0756s21 which were constructed/built/modified after 1982. When Source IDs 2 and/or 3 contains one or both of these two turbines, NSPS Subpart GG will apply to that source. Solar turbine engines s/n 0753s21 or s/n 0756s21 have a nominal heat input rating of 12.6 MMBtu/hr. For purposes of determining the NSPS NO_x limit for Solar turbine engines s/n 0753s21 or s/n 0756s21 in accordance with 40 CFR 60.32(a)(2), a worst-case Y factor (manufacturer's rated heat rate at rated peak load in kilojoules per watt hour) of 1.4 was used since the manufacturer's data was not available.

Factual Basis: This condition incorporates NSPS Subpart GG NO_x emission and sulfur compound limits. The permittee may not allow equipment to violate these standards.

General Discussion –

NO_x Standard: For a turbine subject to 40 C.F.R. 60.332, the NO_x standard is determined by the following equation:

$$STD_{NOX} = 0.015(14.4 / Y) + F$$

where,

STD_{NOX} = allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis)

Y = manufacturer's maximum rated heat rate at the manufacturer's rated peak load (kJ/W-hr), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the affected facility. The value of Y shall not exceed 14.4 kJ/W-hr

F = NO_x emissions allowance for fuel bound nitrogen, percent by volume, **assumed to be zero for Alaska fuel.**

Based on an assumed manufacturer's heat rating of 14.4 kJ/W-hr, and assuming fuel bound nitrogen of zero, the NO_x standard is 150 ppmvd at 15% O₂ for Solar turbine engines s/n 0753s21 or s/n 0756s21.

SO₂ Standard: The permittee is required to comply with on or the other of the following sulfur requirements for Source IDs 2 - 3 (turbines):

- (1) do not cause or allow SO₂ emission in excess of 0.015 percent by volume, at 15 percent O₂ and on a dry basis (150 ppmvd), or
- (2) do not cause or allow the sulfur content for the fuel burned in Source ID(s) to exceed 0.8 percent by weight .

The permittee has elected to comply with the fuel sulfur content limit of 0.8 percent by weight in accordance with 40 CFR 60.333(b). The permittee is required to monitor and report fuel sulfur content when Solar turbine engines s/n 0753s21 or s/n 0756s21 are operated at the facility.

Condition 10 requires that the permittee report to the department as per condition 40 when the NO_x or SO_x emission limits established by NSPS Subpart GG have been exceeded.

Condition 9, NO_x Monitoring, Recordkeeping, and Reporting

Applicability: Periodic monitoring for turbines subject to the NO_x standard of 40 CFR 60.332 NSPS is addressed by Condition 9. This monitoring scheme only applies to turbines subject to 40 CFR 60.332 (Solar engines s/n 0753s21 or s/n 0756s21) that are operated more than 400 hours in a twelve month rolling period. This additional monitoring is necessary to ensure that turbine emissions stay below the NSPS NO_x standard.

Factual basis: The department does not have enough information to make categorical determinations that certain types of turbines, or turbines with emission test results below a certain percentage of the Subpart GG NO_x emission limit will inherently comply with the Subpart GG limit at all times and will never need additional testing. After a sufficient body of NO_x data is gathered under monitoring conditions for compliance with 40 C.F.R. 60, Subpart GG, the department may find that it has enough information to make such categorical determinations. In that event, the department would revise the NO_x monitoring conditions. The department may determine that to assure compliance it is necessary to retain or increase the current monitoring frequency.

These conditions do not include the initial NSPS performance test requirements. If a turbine under this permit is still subject to the performance test requirement of 40 C.F.R. 60.8, a source specific condition will be necessary.

Condition 11, Turbine Relocations

Applicability: The turbine engines are removed from their operating locations periodically for maintenance and a turbine engine from the TAPS inventory of the same turbine engine family is substituted as a replacement. The equipment powered by the turbine engine (such as the pump or the electric generator) remains in place. Most of the turbines were manufactured and began operation on the TAPS prior to October 3, 1977, the applicability date for NSPS Subpart GG. Alyeska does also have some turbines manufactured after October 3, 1977. According to the permittee, Alyeska has at all times treated these turbines manufactured after October 3, 1977, as subject to NSPS Subparts A and GG regardless of where they are operated on the TAPS.

Factual basis: This condition requires monitoring, recordkeeping, and reporting to document that the turbines not subject to NSPS Subpart GG can be clearly identified and that the relocation and replacement of such turbines from the pool does not constitute a “modification” or “reconstruction,” as those terms are defined in NSPS Subpart A.

Condition 12.1 - 12.4, Insignificant Source Reporting

Legal Basis: [18 AAC 50.350(m)(3), 9/4/98]
[18 AAC 50.346(b)(1), 5/3/02]

Factual Basis: The insignificant sources section of the permit replaces the 1 MMBtu/hr source exemption of former permits. 18 AAC 50.365(b) requires no notification when adding insignificant sources to the facility. The regulations require the permittee to report if an insignificant source becomes significant and certify that their insignificant sources comply with applicable requirements. Insignificant sources must comply with the air pollution prohibitions. These conditions restate the regulatory requirement.

Conditions 12 - 15, Insignificant Sources

Applicability: These general emission standards apply to all industrial processes fuel-burning equipment, and incinerators regardless of size.

Factual basis: Conditions 12 through 15 require the permittee to comply with the general standards for insignificant sources. The permittee may not cause or allow their equipment to violate these standards. Insignificant sources are not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance.

The insignificant sources section of the permit replaces the 1 MMBtu/hr source exemption of former permits. 18 AAC 50.365(b) requires no notification when adding insignificant sources to the facility. The regulations require the permittee to report if an insignificant source becomes significant and certify that their insignificant sources comply with applicable requirements. Insignificant sources must comply with the air pollution prohibitions. These conditions restate the regulatory requirement.

Condition 16, Asbestos NESHAP

Applicability: The asbestos demolition and renovation requirements apply if the permittee engages in asbestos demolition or renovation.

Factual Basis: The condition requires the permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. Because these regulations include adequate monitoring and reporting requirements and because the permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with these federal regulations.

Condition 17, Refrigerant and Halocarbon Recycling and Disposal

Applicability: Applies if the permittee engages in the use of or recycling or disposal of certain refrigerants and Halon. The permittee is subject to the requirements of 40 CFR 82 because the permittee operates and maintains systems that contain refrigerant(s) and Halon.

Factual basis: These conditions reference the applicable 40 CFR 82 requirements. The permittee may not cause or allow violations of these prohibitions. No additional MR&R requirements are required to ensure compliance with these federal requirements.

Condition 18, Good Air Pollution Control Practice

Applicability: Applies to all sources except for sources or activities regulated under 40 CFR Part 60, 61, 63 and 82.

Factual basis: Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly, and periodic monitoring that is not continuous would be needed much more frequently to be sure that it is representative.

Records should be kept and available to the department. Records of deferred maintenance may be a reasonable trigger for requesting source testing.

For most existing equipment, the department does not specify that the permittee must follow manufacturer's recommendations. If the manufacturer's recommendations are not suitable for Alaskan conditions, or do not relate to minimizing emissions, the permittee can see that they are changed as a condition of purchase for existing equipment. The requirement for complying with manufacturer's recommendations or with a specific operation and maintenance (O & M) plan is included for control equipment because the efficient operation of control equipment directly relates to emissions, and the department does not anticipate that Alaskan conditions will require drastically different O & M procedures.

It is not the department's intent in specifying manufacturer's recommendations to include those that endorse only the manufacturer's line of replacement parts. The condition states that any suitable replacement parts or equipment can be used.

Condition 18.b requires the permittee to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the department. The department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

Condition 18.c requires that the permittee keep copies of the facility's maintenance procedures for the facility operations. This condition takes into consideration the nature of the permittee's maintenance program, which is procedure based with schedules undergoing frequent changes. Instead of requiring the permittee to keep a copy of the maintenance procedures on site, a copy of the current procedures schedule shall be submitted when requested by the department.

This condition does not apply to sources subject to 40 CFR Part 60, Subpart GG, and 40 CFR Part 61, subpart M.

Condition 19, Dilution

Applicability: This state regulation applies to the permittee because the permittee is subject to emission standards in 18 AAC 50.

Factual Basis: The condition prohibits the permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

Condition 20, Reasonable Precautions to Prevent Fugitive Dust

Applicability: Applies to the permittee because the permittee will engage in industrial activity at the facility.

Factual Basis: The condition restates the regulatory prohibition on fugitive dust. This prohibition calls for reasonable precautions to be taken to prevent particulate matter from being emitted into the ambient air while engaged in industrial activities.

Condition 21, Stack Injection

Applicability: Stack injection requirements apply to the facility because the facility contains a stack or source constructed or modified after November 1, 1982.

Factual Basis: The condition prohibits the permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant

emissions from a stack (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

Condition 22, Open Burning

Applicability: The open burning state regulation in 18 AAC 50.065 applies to the permittee if the permittee conducts open burning at the facility.

Factual Basis: The condition requires the permittee to comply with the regulatory requirements when conducting open burning at the facility.

Condition 23, Air Pollution Prohibited

Applicability: These state regulations apply because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.110 and 18 AAC 50.346. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 24, Technology-Based Emission Standard

Applicability: Technology Based Emission Standard requirements apply to the facility because the facility contains equipment subject to a technology-based emission standard, such as BACT, MACT, NSPS or other “technologically feasible” determinations..

Factual Basis: The permittee is required to take reasonable steps to minimize emissions if certain activity causes exceedance of any technology-based emission standard in this permit. The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with condition 40. Excess emission reporting under condition 40 requires information on the steps taken to minimize emissions, the report required under condition 40 is adequate monitoring for compliance with this condition.

Condition 25, Permit Renewal

Applicability: Applies if the permittee intends to renew the permit.

Factual Basis: The permittee is required to submit a complete application for permit renewal by the specific dates applicable to Pump Station 5 as listed in this condition. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal. No additional requirements are necessary to ensure compliance with this condition.

Condition 26, Requested Source Tests

Applicability: Applies because this is a standard condition to be included in all permits.

Factual Basis: The permittee is required to conduct source tests as requested by the department. Monitoring consists of conducting the requested source test, and no

recordkeeping or reporting requirements are necessary to ensure compliance with this condition.

Conditions 27 - 29, Operating Conditions, Reference Test Methods, Excess Air Requirements

Applicability: Applies because the permittee may be required to conduct source tests during the term of this permit.

Factual Basis: The permittee is required to conduct source testing as set out in conditions 27- 29. These conditions supplement the specific monitoring requirements stated elsewhere in this permit. The test reports required by condition 32 adequately monitor compliance with conditions 27- 29, therefore no additional MR&R requirements are necessary to ensure compliance with these conditions.

Conditions 30 - 33, Test Deadline Extension, Test Plans, Notification & Reports

Applicability: Applies because the permittee may be required to conduct source testing during the term of this permit.

Factual Basis: Standard condition 18 AAC 50.345(a)(10) is incorporated through these three conditions. Because this standard condition supplements specific monitoring requirements stated elsewhere in this permit, no MR&R is required. The source test itself is adequate to monitor compliance with this condition.

Condition 34, Test Exemption

Applicability: Applies when the source exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), 5/03/02, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Condition 35, Particulate Matter (PM) Calculations

Applicability: Applies when the permittee tests for compliance with the PM standard.

Factual Basis: The condition incorporates a regulatory requirement for PM source tests. The permittee must use the equation given in this condition to calculate the PM emission concentration from the source test results. Because this condition supplements specific monitoring requirements stated elsewhere in this permit, no MR&R is required to ensure compliance with this condition.

Condition 36, Certification

Applicability: This is a standard condition to be included in all permits. Applies because every permit requires the permittee to submit reports.

Factual Basis: This condition requires the permittee to certify all reports required by the department and under this permit. To ease the certification burden on the permittee, the condition allows the excess emission reports to be **certified** with the facility report, even though it must still be **submitted** more frequently than the facility operating report. This condition supplements the reporting requirements of this permit, therefore no additional MR&R is necessary to ensure compliance with this condition.

Condition 37, Submittals

Applicability: Applies because the permittee is required to send reports to the department.

Factual Basis: This condition requires the permittee to send submittals to the address specified in this condition. Receipt of the submittal at the correct department office is sufficient monitoring for this condition. This condition supplements the reporting requirements of this permit, therefore no additional MR&R is necessary to ensure compliance with this condition.

Condition 38, Information Requests

Applicability: Applies to all permittees, and incorporates a standard condition

Factual Basis: This condition incorporates a standard condition in regulation, which requires the permittee to submit information requested by the department. Receipt of the requested information is adequate monitoring.

Condition 39, Recordkeeping Requirements

Applicability: Applies because the permittee is required by the permit to keep records.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide adequate evidence of compliance with this requirement, therefore, no additional MR&R is required.

Condition 40, Excess Emission and Permit Deviation Reports

Applicability: Applies when the emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

The condition does not mandate the use of the department's reporting form, but it does specify that the information listed on the form must be included in the report.

The reports themselves and the other monitoring records required under this permit provide an adequate monitoring of whether the permittee has complied with the condition. Please note that there may be additional federally required excess emission reporting requirements.

Condition 41, NSPS and NESHAP Reports

Applicability: Applies to facilities subject to NSPS, NESHAPs, or MACT federal regulations under 40 CFR Parts 60, 61, or 63.

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60, 40 C.F.R. 61, and 40 C.F.R. 63. The permit does not need any MR&R. The reports themselves are adequate monitoring for compliance with this condition.

Condition 42, Operating Reports

Legal Basis: These state regulations apply because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.350 and 18 AAC 50.346. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 43, Annual Compliance Certification

Applicability: Applies to all permittees.

Factual Basis: This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification. Because this requirement is a report, no MR&R is needed. The due date for this report has been extended from February 1 to March 1 as requested.

Conditions 44 - 50, Standard Conditions

Applicability: Applies because these are standard conditions to be included in all permits.

Factual Basis: These are standard conditions required for all operating permits.

Condition 51, Permit Shield

Applicability Applies because the permittee has requested a shield for the applicable requirements listed under this condition.

Factual Basis: Two storage tanks at the Pump Station 5 facility (Crude Oil Breakout Tank, and Fuel Oil Tank) have been granted a shield against NSPS Subparts K, Ka, and Kb. Both subparts Ka and Kb do not apply to these two tanks because they were installed before the applicability date of Subpart Ka and Kb. Furthermore, there has been no modification or reconstruction of the tanks after the applicability dates. The Crude Oil Breakout tank has been granted a shield from NSPS Subpart K based on EPA's letter to Alyeska stating the application of EPA's decision for the Crude Oil Breakout Tank. The Fuel Oil Tank is not subject to Subpart K since fuel oil does not fall under the definition of petroleum liquids in Subpart K. NSPS Subpart K does not apply to the 10,500 gallon capacity Gasoline Tank since it is not over 40,000 gallons in volume. NSPS Subparts Ka and Kb do not apply to the Gasoline Tank because it was installed before the applicability date of Subpart Ka and Kb, and there has been no modification or reconstruction after these applicability dates.

The following table explains the permit shield requests and the department's applicability determination. The permit conditions sets forth the requirements that the department determined were not applicable to the facility, based on the permit application, past operating permit, construction permits and inspection reports.

The table below identifies application shield requests that were denied, and the reason they were denied.

Table D - Permit Shields Denied

SHIELD REQUESTED FOR:	REASON FOR SHIELD REQUEST:	REASON FOR REQUEST DENIAL:
Facility-Wide		
Former 18 AAC 50.400 Permit	Facility was not required to have a former 18 AAC 50.400 permit (ref. ADEC letter dated September 12, 1990)	Because the requirement for these former permits (former 18 AAC 50.400) is no longer in the current regulations, there is no need for a shield for this former regulation.
Federal PSD Permit	September 30, 1980 permit was issued for construction of two mainline turbines. The construction was not commenced within 18 months and has not ever commenced. The PSD permit has lapsed.	Because the PSD permit has lapsed, there is no need for a shield against a permit that no longer exists.
COBC provisions	Permittee has complied with these provisions by complying with 18 AAC 50 and issued permits.	Shields are not granted against COBC provisions. Permit shields may only be granted against requirements of AS 46.14, 18 AAC 50, or the Clean Air Act. (18 AAC 50.335(l)).

Conditions 52 - 60, (Section 12)- Visible Emissions and PM Monitoring Plan

Applicability: This regulation applies to operation of all fuel-burning equipment in Alaska. Source ID(s) 1 - 10 are fuel-burning equipment.

Factual basis: These conditions have recently been adopted into regulation as a standard condition. MR&R requirements are listed in Section 12 of the permit.

Liquid Fired:

Monitoring – The visible emissions may be observed by Method-9 as detailed in Section 12. Corrective actions such as maintenance procedures and either more frequent or less frequent testing may be required depending on the results of the observations.

Recordkeeping – The permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

Reporting – The permittee is required to report: 1) emissions in excess of the federal and the state visible emissions standard, 2) and deviations from permit conditions. The

permittee is required to include copies of the results of all visible emission observations with the facility operating report.

Insignificant Sources:

For insignificant sources, no visible emissions monitoring is required. Sources that are insignificant sources based solely on an emission rate basis, consistent with 18 AAC 50.335(r) are not required to monitor emissions unless the source emits emissions in quantities greater than those specified in 18 AAC 50.335(r) and the source becomes regulated in accordance with recently issued Department Guidance AWQ 02-014. The permittee must annually certify compliance under condition 43 with the opacity standard.